The Reinforced Earth Company

8614 WESTWOOD CENTER DRIVE SHITE LLOG. VIENNA, VIRGINIA 22182 (703) 821-1175

TFRRATRFI A WIRE FACED MSF WALL SYSTEM

DESIGN CRITERIA

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I. DESIGN IS BASED ON THE ASSUMPTION THAT THE MATERIAL WITHIN. BEHIND. AND BENEATH THE REINFORCED VOLUME: METHODS OF CONSTRUCTION: AND QUALITY OF PREFABRICATED MATERIALS SHALL CONFORM TO SECTION 548.

2. SOIL PARAMETERS.

SEE WALL CONTROL DRAWINGS FOR SOIL CHARACTERISTICS OF FOUNDATION MATERIAL TO BE USED IN THE DESIGN OF THE WALL SYSTEM, THE CONTRACTOR SHALL PROVIDE SOIL DESIGN PARAMETERS FOR BACKELL MATERIAL BASED ON THE ACTUAL SOIL CHARACTERISTICS UTILIZED AT THE SITE. THE VALUES OF FRICTION ANGLE (0), COHESION (c) AND TOTAL UNIT WEIGHT (Y) SHALL BE PROVIDED IN THE SHOP DRAWINGS.

- 3. THE MAXIMUM APPLIED BEARING PRESSURE AT THE FOUNDATION LEVEL IS AS SHOWN ON THE WALL FLEVATIONS FOR EACH DESIGN CASE, IT IS THE RESPONSIBILITY OF THE ENGINEER TO DETERMINE THAT THIS APPLIED BEARING PRESSURE IS ALLOWABLE FOR THAT LOCATION.
- 4. ANY UNSUITABLE FOUNDATION MATERIAL BELOW THE REINFORCED VOLUME. AS DETERMINED BY THE ENGINEER, SHALL BE EXCAVATED AND REPLACED WITH SUITABLE MATERIAL OR OTHERWISE STABILIZED AS DIRECTED BY THE ENGINEER.
- 5. THE MINIMUM FACTORS OF SAFETY REQUIRED FOR DESIGN

OVERTURNING = 2.0 SUDING = 15 INTERNAL PULLOUT = 1.5 (ALLOWARIE DEFORMATION = 0.75 INCH) REARING CAPACITY = 25 OVERALL STABILITY = 1.5 STEEL SOIL REINFORCEMENT = 0.55Fy AT END OF DESIGN LIFE AND 0.50 Fu AT NET SECTION OF BOLTED CONNECTION MAXIMUM PULLOUT FACTOR

FOR STRIPS FX (FOR SAND) = 1.5 (FOR LIMEROCK) = 2.0 FOR LADDERS NOWAX = 30

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6. FOR LOCATION OF THE WALLS. SEE RETAINING WALL CONTROL PLANS.

CONSTRUCTION

- 7. BACKFILL MATERIAL SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 548. INSTALLATION OF REINFORCING LADDERS SHALL BE PERMITTED ONLY AFTER PLACEMENT AND COMPACTION OF THE BACKFILL MATERIAL HAS REACHED THE REQUIRED LEVEL.
- IF STRUCTURES IN EXCESS OF 20'IN HEIGHT OCCUR. THE FINISHED GRADE IN FRONT OF THE WALL SHALL BE PLACED AND COMPACTED REFORE WALL CONSTRUCTION EXCEEDS A HEIGHT OF 20', FINISHED GRADE BACKELL SHALL BE COMPACTED TO 95% OF AASHTO T-180 UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

CONFLICTING STRUCTURES

- 9. IF MANHOLES AND DROP INLETS ARE PRESENT. THEY SHALL BE LOCATED AS SHOWN ON THE WALL ELEVATIONS.
- IO. IF PILES ARE LOCATED WITHIN THE REINFORCED VOLUME. THEY SHALL BE DRIVEN PRIOR TO CONSTRUCTION OF THE WALL UNLESS A METHOD TO PROTECT THE STRUCTURE. WHICH IS ACCEPTABLE TO THE FIGURER AND THE REINFORCED EARTH COMPANY. IS PROPOSED AND APPROVED IN WRITING.
- II. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION OF ANY GUARDRAIL POSTS WITHIN THE REINFORCED VOLUME. PRIOR TO PLACEMENT OF THE TOP LAYERS OF REINFORCEMENTS, INDIVIDUAL REINFORCING LADDERS WAY BE SYSTEMATICALLY SHIFTED TO AVOID THE POST LOCATIONS IF AUTHORIZED BY THE ENGINEER, ANY DAMAGE DONE TO THE REINFORCING ADDERS DUE TO INSTALLATION OF GUARDRAIL POSTS SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- 12. IF EXISTING OR FUTURE STRUCTURES, PIPES, FOUNDATIONS OR GUARDRAIL POSTS WHICH ARE WITHIN THE REINFORCED VOLUME INTERFERE WITH THE NORMAL PLACEMENT OF REWEDBOING LADDERS AND SPECIFIC DIRECTION HAS NOT BEEN PROVIDED ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO DETERMINE WHAT COURSE OF ACTION SHOULD BE TAKEN. UNLESS SHOWN OTHERWISE.
- 13. THE CONTRACTOR IS RESPONSIBLE FOR GRADUALLY DEFLECTING UPPER REINFORCING LADDERS DOWNWARD TO AVOID CONFLICTS WITH PAVING AND SUBGRADE PREPARATION, THE CONTRACTOR'S ATTENTION IS DIRECTED. ESPECIALLY TO SITUATIONS WHERE ROADWAY SUPERELEVATION AND/OR SOIL MIXING ARE ANTICIPATED.

MATERIALS NOTES

14. SUPPLIES

ONLY THE FOLLOWING MATERIALS ARE SUPPLIED BY THE REINFORCED FARTH COMPANY

- PREFARRICATED WIRE FACING PANELS
- WIRE REINFORCING LADDERS OR STRIPS - HANDLE BAR CONNECTORS OR PINS
- MX4 SOIL RETENTION FABRIC OR EQUAL

ANY OTHER MATERIALS CALLED FOR IN THE CONTRACT PLANS OR SPECIFICATIONS ARE TO BE SUPPLIED BY THE CONTRACTOR.

15 LADOER OR STRIP LENGTH

THE REINFORCING LADDER LENGTHS SHOWN ON THE PLANS ARE MEASURED FROM THE BACK FACE OF THE WIRE FACING PANELS TO THE LINIT OF THE SELECT BACKFILL MATERIAL. AND ARE THE LENGTHS USED IN THE REINFORCEMENT DESIGN CALCULATIONS.

- IG. THE REINFORCED FARTH COMPANY SUPPLIES FACING PANELS AND ACCESSORIES TO BE USED IN CONJUNCTION WITH OTHER MATERIALS IN THE CONSTRUCTION OF THE REINFORCED FARTH (R) RETAINING WALLS DETAILED HEREIN. THE CONSTRUCTION AND QUALITY CONTROL PROCEDURES MANUAL FURNISHED BY THE REINFORCED FARTH COMPANY IS INTENDED TO PROVIDE A GENERAL EXPLANATION OF THE SYSTEM.IT IS THE CONTRACTOR'S OBLIGATION TO DEVISE AND EXECUTE A PROJECT SPECIFIC FRECTION SEQUENCE. PANEL UNLOADING. HANDLING AND BRACING SYSTEM. AND FALL PROTECTION SYSTEM. THE BRACING SYSTEM SHOWN IN THE CONSTRUCTION AND QUALITY CONTROL PROCEDURES MANUAL IS GENERAL IN NATURE AND DOES NOT ACCOUNT FOR PROJECT SPECIFIC CRITERIA, COMPLIANCE WITH THE GUIDELINES IN THIS MANUAL DOES NOT RELIEVE THE CONTRACTOR OF ITS RESPONSIBILITY TO ADHERE TO THE PROJECT PLANS, SPECIFICATIONS AND CONTRACT DOCUMENTS OR COMPLIANCE WITH ALL FALL PROTECTION. SAFETY. LAWS. STANDARDS AND PROCEDURES AT THE JOBSITE. CONTRACTORS SHOULD TAKE SPECIAL PRECAUTIONS TO PREVENT THE PANELS FROM SHIFTING OR FALLING DURING THE ERECTION PROCESS.
- 17. THE REINFORCED EARTH COMPANY IS RESPONSIBLE FOR INTERNAL STABILITY OF THE STRUCTURE ONLY, EXTERNAL STABILITY DESIGN INCLUDING FOUNDATION AND SLOPE STABILITY IS THE RESPONSIBILITY OF OTHERS
- 18. THIS DRAWING CONTAINS INFORMATION PROPRIETARY TO THE REINFORCED EARTH COMPANY. AND IS BEING FURNISHED FOR THE USE OF FLORIDA DEPARTMENT OF TRANSPORTATION ONLY IN CONNECTION WITH FOOT PROJECTS, AND THE INFORMATION CONTAINED HEREIN IS NOT TO BE TRANSMITTED TO ANY OTHER ORGANIZATION UNLESS SPECIFICALLY AUTHORIZED IN WRITING BY THE REINFORCED EARTH COMPANY, THE REINFORCED EARTH COMPANY IS EXCLUSIVE LICENSEE IN THE UNITED STATES UNDER PATENTS ISSUED TO HENRY VIDAL AND THE FURNISHING OF THIS DRAWING DOES NOT CONSTITUTE AN EXPRESSED OR IMPLIED LICENSE UNDER THE VIDAL PATENTS.
- 19. THESE DRAWINGS ARE CERTIFIED WITH RESPECT TO THE INTERNAL STABILITY OF REINFORCED EARTH STRUCTURES ONLY

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD DESIGN					
RETAINING WALL SYSTEM THE REINFORCED EARTH COMPANY TERRATREL WIRE WALL					
	Names	Dates	Approved By W. W.		
Designed By			State Structures Design Engineer		
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